

What is claimed is:

SUB  
ALL

- 1 A fingerprint input apparatus, comprising:
- 5 a fingerprint sensor for reading a fingerprint and  
then outputting fingerprint image data  
corresponding to said fingerprint;
- 10 a fingerprint analyzer for analyzing the quality of a  
fingerprint image represented by said fingerprint  
image data and creating an evaluation result  
representing the cause of said quality failure  
and/or a countermeasure against said cause when  
said analysis result indicates a quality failure;  
and  
an evaluation result display for displaying said  
evaluation result.
- 15 2 The fingerprint input apparatus defined in Claim 1,  
wherein said fingerprint analyzer comprises:
- 20 a quality evaluation and processing means for  
performing the analysis based on the image  
quality and/or feature points of a fingerprint  
image represented by said fingerprint image data;  
and  
an evaluation result display and processing means for  
driving said evaluation result display based on  
said evaluation result.
- 25 3 The fingerprint input apparatus defined in Claim 2,

wherein said fingerprint sensor comprises a light source and an image pickup device.

4 The fingerprint input apparatus defined in Claim 2, wherein said quality evaluation and processing means performs the analysis based on any one of the density of said fingerprint image, a fingerprint display area indicated by said fingerprint image, the shape of ridges indicated by said fingerprint image, and the position of a spiral shape indicated by said fingerprint image.

5 The fingerprint input apparatus defined in Claim 2, wherein said evaluation result display includes light emitting elements for visually displaying said evaluation result.

6 The fingerprint input apparatus defined in Claim 2, wherein said evaluation result display includes a display panel for visually displaying said evaluation result.

7 The fingerprint input apparatus defined in Claim 2, wherein said evaluation result display includes an acoustic device for acoustically displaying said evaluation result.

8 The fingerprint input apparatus defined in Claim 1, wherein said fingerprint sensor comprises a light source and an image pickup device.

9 The fingerprint input apparatus defined in Claim 8, wherein said quality evaluation and processing means

**5**

**10**

App  
Code

15

20

25

emitting elements for visually displaying said evaluation result.

15 The fingerprint input apparatus defined in Claim 13,  
wherein said evaluation result display includes an  
5 acoustic device for acoustically displaying said  
evaluation result.

16 The fingerprint input apparatus defined in Claim 13,  
wherein said evaluation result display includes an  
acoustic device for acoustically displaying said  
10 evaluation result.

17 The fingerprint input apparatus defined in Claim 1,  
wherein said evaluation result display includes light  
emitting elements for visually displaying said evaluation  
result.

18 The fingerprint input apparatus defined in Claim 1,  
wherein said evaluation result display includes a display  
panel for visually displaying said evaluation result.

19 The fingerprint input apparatus defined in Claim 1,  
wherein said evaluation result display includes an  
20 acoustic device for acoustically displaying said  
evaluation result.

20 A fingerprint input method comprising the steps of:  
reading a fingerprint and then outputting fingerprint  
image data corresponding to said fingerprint;  
25 analyzing the quality of a fingerprint image

5